PRODUCT CATALOGUE

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What is a UPS?

A UPS, acronym of Uninterruptible Power Supply, is an equipment that provides emergency power when the utility mains fails. It is equipped with batteries that start to work when a power outage occurs.

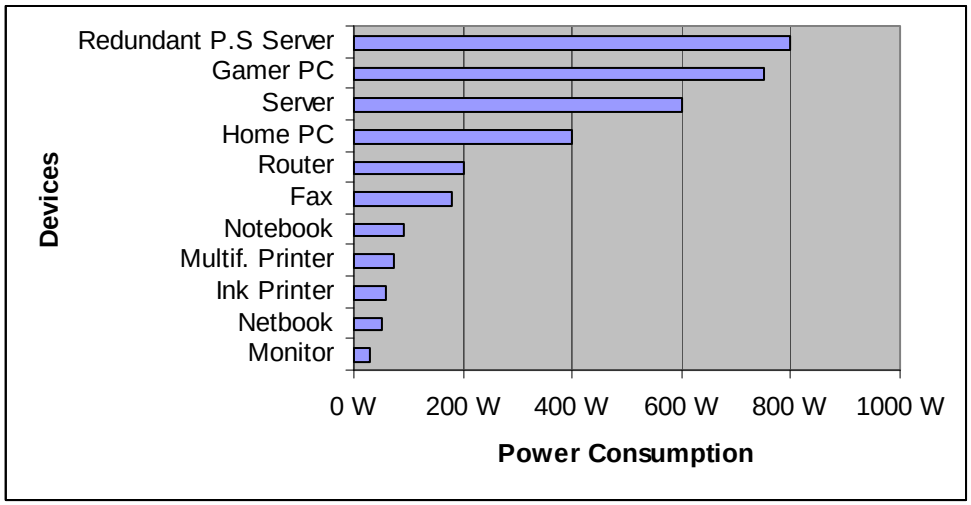
It also regulates the electric flux, reducing or increasing the different electric fluctuations and eliminating the bad harmonics of the means. It is an appropriate protection against power overvoltages, surges, spikes or brownouts.

These equipments are typically used to protect computers, networks, communication devices and any other electric device where an unexpected power surge or disruption could cause data loss or even very serious damages.

What UPS capacity is the most suitable for me?

The Volt-ampere (VA) is the unit to measure the UPS capacity. It is also called "apparent power". However, in this catalogue you will also find the capacity measured in Watts (W), which is the real power, so you can easily decide which the most suitable UPS is, following to your needs.

Here below you can find a chart with the estimated power consumptions of the most commonly used devices and systems.



What is an AVR?

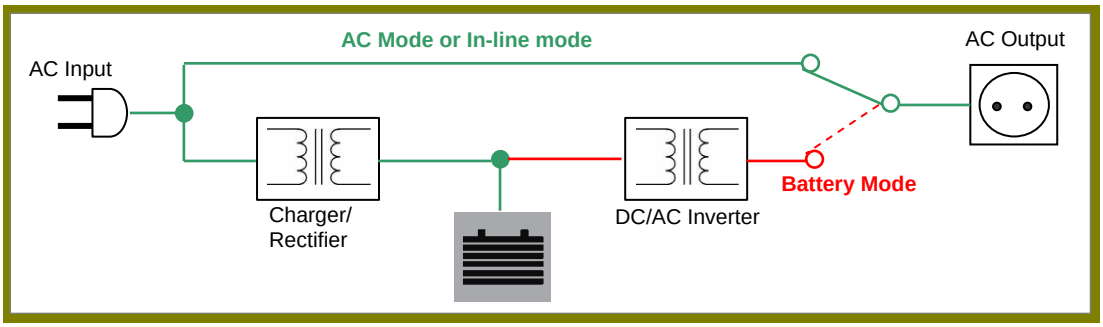
An AVR, acronym of *Automatic Voltage Regulator*, is an equipment designed to maintain a constant output voltage level, avoiding the typical voltage fluctuation of the utility mains. It regulates the electric flux, reducing or increasing the different electric fluctuations of the means, protecting the connected loads from power overvoltages, surges, spikes or brownouts, increasing their lifespan.

Unlike UPS, AVR are not equipped with batteries, so the connected loads stop working in case of power failure.

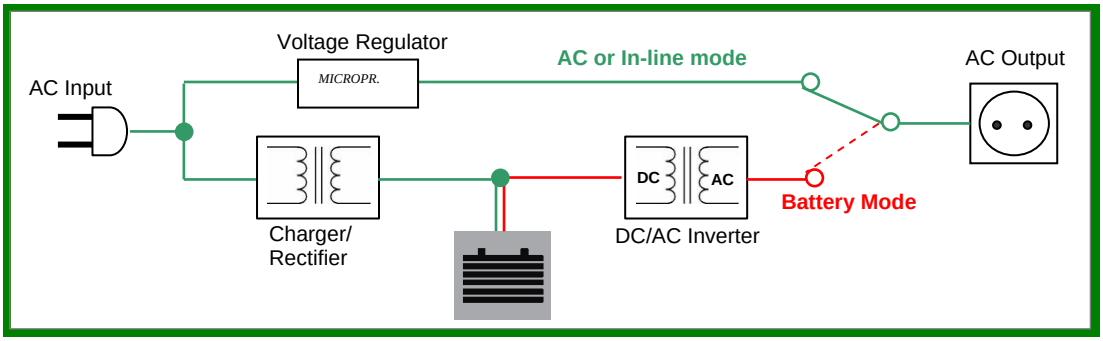
Types of UPS

You can find three different types of UPS: **Off-Line, Line-Interactive and On-Line.**

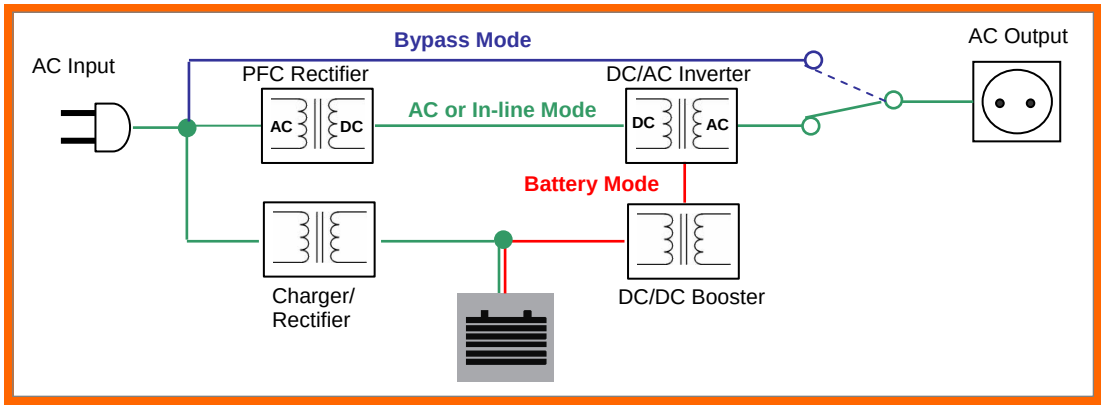
Basically, the loads connected to an **Off-Line UPS** are powered by the utility means. The UPS batteries start to work when a power failure happens. In that moment, almost instantaneously, the UPS powers the connected loads with their own batteries.
*Application***:** Areas with few electric disturbances and good quality utility means.
Diagram:



A **Line-Interactive UPS** is very similar to the Off-Line UPS but it is equipped with a special microprocessor that controls the mains' fluctuations, regulating the output voltage (buck/boost effect), without discharging the batteries. In case of power failure, the batteries automatically start to power the connected devices.
Application: From domestic PC to small network servers, offices or small business.
Diagram:



An **On-Line UPS**, also called "double-conversion UPS", is equipped with both an AC/DC rectifier and a DC/AC Inverter, and is continuously providing power from the batteries. That means that it is a real electric firewall for any sensitive device.
Application: Any computer network, critical and essential (data networks, servers, telecommunications, industrial applications, …).
Diagram:



LA-SP7

Overview

This item is designed to provide surge protection and power extender for connected devices.

With its master-controlled design, the unit provides energy saving by shutting down unused peripherals. The master outlet is designed to sense current drawn by connected equipment, usually a computer. When the computer is shut down, it will shut off power to slave outlets that connect all PC peripherals.

At the same time, it also has two independent outlets that are not disconnected even if the PC branched to the master outlet has been shut down. It is perfect for all those devices that must continue working at any moment.

Main features

- Selectable Master-slave operation to reduce idle power wastage.
- Stylist design with colourful panels for your consideration.
- Provides 7 local receptacles for easy of the use.
- Provides modem/phone line surge protection.

Codes and logistic info

EAN Code:	8437008183497
Dimensions:	166 x 161 x 88.7 mm
Net Weight:	0.60 Kg
Gross Weight:	0.79 Kg
Box Gross Weight:	10.35 Kg
Units per box:	12 un
Units per palet:	384 un

Technical specifications

LA-SP7 SURGE PROTECTOR	
MODEL	**LA-SP7**
INPUT	
Voltage	220/230/240V
OUTPUT	
Voltage	220/230/240V
Max. Load	10A Max / 250V
PROTECTION	
Protection	Modem / line surge protection
INDICATORS	
Power LED	Green LED lighting
Fault	Green LED off
Master/slave function enabled	Yellow LED lighting
Master/slave function disabled	Yellow LED off
INTERFACE	
Sockets	1 x Schuko – Master outlet 4 x Schuko – Slave outlets 2 x Schuko – Independent outlets
PHYSICAL	
Dimensions, D x W x H (mm)	166 x 161 x 86.7
Net Weight (Kg)	0,7
OPERATING ENVIRONMENT	
Humidity	0-90 % RH @ 0 - 40°C (non-condensing)

*Specifications are subject to change without further notice

LA-AVR

General overview

This LA-AVR series offers one-step boost and one-step buck stabilizer to continuously supply a clean power source to the connected equipment. In addition to the surge and shortcircuit protection, it has an integrated thermal sensor that also protects the devices from overheating.

With its fashionable and flexible cabinet, this AVR can be installed on a desk or wall without causing an unsightly or unprofessional image, and will perfectly utilize a limited working environment. With colorful panel selections, customers can choose from a variety of appropriate colors based on their need or aesthetic preference.

There are three available capacities: 600VA, 1000VA y 1200VA.

Main features

- Accepts wide input voltage range (180-264 VAC).
- Provides stable output voltage through boost and buck stabilizer.
- Provides local receptacles for easy use.
- Provides modem/phone line surge protection.
- Provides overload, short circuit and overheating protection.
- Built-in thermal sensor provides over-temperature protection and recovers while abnormal situation is eliminated.
- Stylist design with optional colourful panels.

Codes and logistic info

EAN code:

- AVR-600 8437008183565
- AVR-1000 8437008183596
- AVR-1200 8437008183732

Dimensions: 166 x 161 x 88.7 mm

Net / Gross Weight / Box Gross Weight:

- AVR-600 1,7 Kg / 1,80 Kg / 17.06 Kg
- AVR-1000 2,0 Kg / 2,15 Kg / 20.15 Kg
- AVR-1200 2,1 Kg / 2,26 Kg / 21.10 Kg

Units per box: 9 un
Units per pallet: 288 un

Technical specifications

AVR – AUTOMATIC VOLTAGE REGULATOR			
MODEL	**LA-AVR-600**	**LA-AVR-1000**	**LA-AVR-1200**
Capacity	600 VA / 360 W	1000 VA / 600 W	1200 VA / 720 W
INPUT			
Voltage	220/230/240VAC		
Voltage range	180 - 264VAC		
Frequency	50 Hz		
OUTPUT			
Voltage regulation	± 12 %		
AVR	± 8 %		
PROTECTION			
Comprehensive protection	Short circuit, overload and over-temperature protection		
INDICATORS			
Power LED	Green LED		
AVR LED	Red LED		
INTERFACE			
Sockets	3 x Schuko + RJ11		
PHYSICAL			
Dimensions, D x W x H (mm)	166 x 161 x 86.7		
Net Weight (Kg)	1.7	2	2.1
OPERATING ENVIRONMENT			
Humidity	0-90 % RH @ 0 - 40°C (non-condensing)		
Noise Level	Less than 40dB		

*Specifications are subject to change without further notice

LA-SCD

General overview

LA-SCD is an Off-Line, compact UPS perfect for home use and small office appliances.

It provides a reliable protection thanks to its integrated microprocessor.

It is very simple and easy to install and operate, and can be placed anywhere, on a desk or on the wall.

It is available in two capacities: 400VA y 600VA

Main features

- Compact size with local outlets for easy use.
- Excellent microprocessor control guarantees high reliability.
- Auto restart while AC is recovering.
- Simulated sine wave.
- Cold start function.
- Simple and easy installation and operation.

Codes and logistic info

EAN Code:
- SCD-400 8437008183770
- SCD-600 8437008183787

Dimensions: 166 x 161 x 88.7 mm

Net / Gross weight / Box Gross Weight:
- SCD-400 2.25 Kg / 2.40 Kg / 22.54 Kg
- SCD-600 2.56 Kg / 2.71 Kg / 25.33 Kg

Units per box: 9 un
Units per pallet: 288 un

Technical specifications

LA-SCD OFF-LINE UPS			
MODEL		**LA-SCD-400**	**LA-SCD-600**
CAPACITY		400 VA/ 200 W	600 VA/ 300 W
INPUT			
Voltage	Nominal voltage	220/230/240VAC	
	Acceptable Voltage range	180-270VAC	
Frequency		50 Hz	
OUTPUT			
AC Voltage Regulation (Battery mode)		±10%	
Frequency range (Battery mode)		50 Hz	
Transfer Time (Typical)		2-6 ms	
Waveform (Battery mode)		Simulated Sine Wave	
BATTERY			
Battery type & quantity		12V / 4.5Ah x 1	12V / 5Ah x 1
Typical Recharge Time		8 hours to 90% after complete discharge	
INDICATORS			
AC Mode		Green LED lighting	
Battery mode		Green LED flashing every 10 seconds	
Low Battery		Green LED flashing every second and red LED lighting	
Fault		Red LED lighting	
Overheating		Red LED flashing every 0.5 second	
ALARM			
Battery mode		Sounding every 10 seconds	
Low Battery		Sounding every second	
Fault		Continuously sounding	
INTERFACE			
Output		3 x Schuko	
PHYSICAL			
Dimensions, D x W x H (mm)		166 x 161 x 86.7	
Net Weight (Kg)		2.25	2.56
ENVIRONMENT			
Humidity		0 to 90% Relative Humidity (non-condensing)	
Operating Temperature		0℃ to 40℃	

*Specifications are subject to change without further notice

LA-VST

General overview

LA-VST series are Line-interactive UPS with a compact size. They are perfect to protect small networks, offices and small business, saving the information on time and avoiding irreparable damages.

They are available in 5 capacities: 650VA, 850VA, 1000VA, 1500VA y 2000VA

Main features

- Compact size.
- Excellent microprocessor control guarantees high reliability.
- Boost and buck AVR for voltage stabilization.
- No load auto shutdown.
- Auto restart while AC is recovering.
- Simulated sine wave.
- Off-mode charging.
- Cold start function.
- Optional USB/RS-232 communication port and RJ-11 phone protection.
- Offering LED and LCD panels for selection.

Codes and logistic info

EAN Code:

VST-650	8437008183831
VST-850	8437008183848
VST-1000	8437008183855
VST-1500	8437008183862
VST-2000	8437008183879

Units per box / per pallet:

VST-650 & VST-850	4 un. / 128 un.
VST-1000	1 un. / 63 un.
VST-1500 & VST-2000	1 un. / 42 un.

Dimensions: See next page

Net Weight: See next page

Gross Weight / Box Gross Weight:

VST-650	4.52 Kg / 18.91 Kg
VST-850	5.15 Kg / 21.45 Kg
VST-1000	8.67 Kg
VST-1500	12.17 Kg
VST-2000	13.18 Kg

Front and rear view

VST-650 / VST-850

VST-1000

VST-1500 / VST-2000

Technical Specifications

VST SERIES – LINE INTERACTIVE UPS						
MODEL		**LA-VST-650**	**LA-VST-850**	**LA-VST-1000**	**LA-VST-1500**	**LA-VST-2000**
CAPACITY		650VA / 360W	850VA / 480W	1000VA / 600W	1500VA / 900W	2000VA / 1200W
INPUT						
Voltage		110/120VAC or 220/230/240VAC				
Voltage Range		81-145VAC / 162-290VAC				
Frequency Range		60/50 Hz (auto sensing)				
OUTPUT						
AC Voltage Regulation (Batt. Mode)		±10%				
Frequency range (Batt. mode)		60 Hz or 50 Hz ±1 Hz				
Transfer Time (Typical)		Typical 2-6 ms, 10ms max.				
Waveform (Battery mode)		Simulated Sine Wave				
BATTERY						
Battery Type & Number		12V/7AHx1	12V/9AHx1	12V/7AHx2	12V/9AHx2	12V/9AHx2
Backup time (1 PC @ 120W)		10 min.	15 min	25 min	30 min	35 min
Typical Recharge Time		4-6 hours recover to 90% capacity				
INDICATORS						
LED Display	AC Mode	Green lighting			Right green lighting & 2nd to 5th green gradually lighting indicating load level	
	Battery Mode	Green flashing			Right green flashing & 2nd to 5th green gradually lighting indicating battery capacity	
	Fault	N/A		Red lighting		
PROTECTION						
Full protection		Overload, discharge and overcharge protection				
ALARM						
Battery mode		Sounding every 10 seconds				
Low battery		Sounding every second				
Overload		Sounding every 0,5 seconds				
Battery Replacement Alarm		Sounding every 2 seconds				
Fault		Continuously sounding				
INTERFACE						
Power Output		2xschuko		2xschuko + 2xIEC		
Communication Ports		1xUSB + 1xRJ11		1xUSB + 1xRJ11/45		
PHYSICAL						
Dimensions, DxWxH (mm)		287 x 100 x 142		350 x 146 x 160	395 x 145 x 205	
Net Weight (Kg)		4,25	4,9	8,0	11,1	11,5
ENVIRONMENT						
Humidity		0-90 % RH @ 0 - 40°C (non condensing)				
Noise Level		Less than 40dB				
SOFTWARE						
Supported O.S.		Supports Windows® 2000/2003/XP/Vista/2008/7, Linux, Unix and MAC				

* Specifications are subject to change without further notice

LA-VST-LCD

General Overview

LA-VST series are Line-interactive UPS with a compact size. They are perfect to project small networks, offices, small business, saving the information on time, avoiding irreparable damages.

The LCD display on the front panel allows controlling the different UPS parameters.

They are available in 3 capacities: 1000VA, 1500VA and 2000VA. 650VA and 850VA capacities with LCD under customer demand.

Main features

- Compact size.
- Excellent microprocessor control guarantees high reliability.
- Boost and buck AVR for voltage stabilization.
- No load auto shutdown.
- Auto restart while AC is recovering.
- Simulated sine wave.
- Off-mode charging.
- Cold start function.
- Optional USB/RS-232 communication port and RJ-11 phone protection.
- LCD display on the front panel.

Codes and logistic info

EAN code:

➢ VST-1000-LCD	8437008183909
➢ VST-1500-LCD	8437008183916
➢ VST-2000-LCD	8437008183923

Units per box / per pallet:

➢ VST-1000-LCD	1 un. / 63 un.
➢ VST-1500 & VST-2000	1 un. / 42 un.

Dimensions: See next page

Net Weight: See next page

Gross Weight:

➢ VST-1000-LCD	8.67 Kg.
➢ VST-1500-LCD	12.17 Kg.
➢ VST-2000-LCD	13.18 Kg.

Front and rear view

VST-1000-LCD

VST-1500-LCD / VST-2000-LCD

Technical Specifications

VST SERIES – LINE INTERACTIVE UPS					
MODEL	**LA-VST-650LCD**	**LA-VST-850LCD**	**LA-VST-1000LCD**	**LA-VST-1500LCD**	**LA-VST-2000LCD**
CAPACITY	650VA / 360W	850VA / 480W	1000VA / 600W	1500VA / 900W	2000VA / 1200W
INPUT					
Voltage	110/120VAC or 220/230/240VAC				
Voltage Range	81-145VAC / 162-290VAC				
Frequency Range	60/50 Hz (auto sensing)				
OUTPUT					
AC Voltage Regulation (Batt. Mode)	±10%				
Frequency range (Batt. mode)	60 Hz or 50 Hz ±1 Hz				
Transfer Time (Typical)	Typical 2-6 ms, 10ms max.				
Waveform (Battery mode)	Simulated Sine Wave				
BATTERY					
Battery Type & Number	12V/7AHx1	12V/9AHx1	12V/7AHx2	12V/9AHx2	12V/9AHx2
Backup time (1 PC @ 120W)	10 min.	15 min	25 min	30 min	35 min
Typical Recharge Time	4-6 hours recover to 90% capacity				
INDICATORS					
LCD Display	AC mode, Battery mode, Load level, Battery level, Input Voltage, Output Voltage, Overload, Fault and Low battery				
PROTECTION					
Full protection	Overload, discharge and overcharge protection				
ALARM					
Battery mode	Sounding every 10 seconds				
Low battery	Sounding every second				
Overload	Sounding every 0,5 seconds				
Battery Replacement Alarm	Sounding every 2 seconds				
Fault	Continuously sounding				
INTERFACE					
Power Output	2xschuko		2xschuko + 2xIEC		
Communication Ports	1xUSB + 1xRJ11		1xUSB + 1xRJ11/45		
PHYSICAL					
Dimensions, DxWxH (mm)	287 x 100 x 142		350 x 146 x 160	395 x 146 x 205	
Net Weight (Kg)	4,25	4,9	8,0	11,1	11,5
ENVIRONMENT					
Humidity	0-90 % RH @ 0 - 40°C (non condensing)				
Noise Level	Less than 40dB				
SOFTWARE					
Supported O.S.	Supports Windows® 2000/2003/XP/Vista/2008/7, Linux, Unix and MAC				

* Specifications are subject to change without further notice

LA-ITR-LCD

General overview

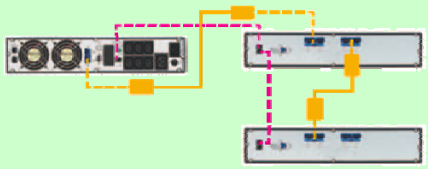
LA-ITR series UPS are high performance, line-interactive UPS with a pure sine wave output and an output power factor 0.8 that provide full power protection against power failure, spikes and surge in small footprint.

Combining flexible rack/tower form factor and easy-shift LCD panel design, this series is perfect for networking, telecom, server and mission-critical applications.

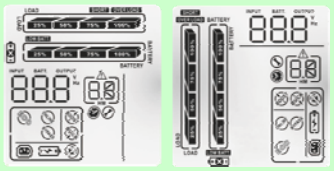
They are available in 6 capacities: 800VA, 1100VA, 1500VA, 2000VA, 2500VA and 3000VA. Long-run models also available in 1100VA, 2000VA y 3000VA capacities under customer demand.

Main features

- Excellent microprocessor control guarantees high reliability.
- Built-in Bust/Book AVR.
- Pure Sine Wave.
- Output power factor: 0,8.
- Programmable power management outlets.
- Long-run models available:
- ECO operation for energy saving.
- Emergency Power Off function (EPO).
- Multiple communication ports: USB, RS-232, SNMP (optional).
- Hot-swappable battery design.
- Rack/tower design with easy-shift LCD panel:



Rack LCD



Tower LCD

Codes and logistic info

EAN Code:

LA-ITR-800	8437008183077
LA-ITR-1100	8437008183084
LA-ITR-1500	8437008183091
LA-ITR-2000	8437008183107
LA-ITR-2500	8437008183114
LA-ITR-3000	8437008183121

Units per box / per pallet: 1 un. / 14 un.

Dimensions: See next page

Net Weight: See next page

Gross Weight:

LA-ITR-800	16.15 Kg.
LA-ITR-1100	17.10 Kg.
LA-ITR-1500	24.40 Kg.
LA-ITR-2000	26.70 Kg.
LA-ITR-2500	32.07 Kg.
LA-ITR-3000	34.35 Kg.

Front and rear view

FRONT (all capacities)

LA-ITR-800 / 2000-LCD

LA-ITR-2500 / 3000-LCD

Technical Specifications

ITR-LCD SERIES – HIGH PERFORMANCE LINE-INTERACTIVE UPS							
MODEL		**LA-ITR-800 LCD**	**LA-ITR-1100 LCD**	**LA-ITR-1500 LCD**	**LA-ITR-2000 LCD**	**LA-ITR-2500 LCD**	**LA-ITR-3000 LCD**
CAPACITY		800VA/640W	1100VA/880W	1500VA/1200W	2000VA/1600W	2500VA/2000W	3000VA/2400W
INPUT							
Voltage		110/120VAC or 208/220/230/240VAC					
Acceptable Voltage Range		81-145VAC / 162-290VAC					
Frequency Range		60/50 Hz (auto sensing)					
OUTPUT							
Voltage regulation (AC Mode)		110/120VAC or 208/220/230/240VAC					
Voltage regulation (Battery Mode)		±1%					
Frequency Range (Battery Mode)		60 Hz or 50 Hz ±1 Hz					
Current Crest Ratio		3:1					
Harmonic Distortion		5% max. @ 100% linear load, 10% máx. @ 100% non-linear load (before alarm)					
Transfer time		Typical 2-6 ms, 10ms max.					
Waveform (Battery Mode)		Pure Sine Wave					
BATTERY							
Standard Model	Type & Number	12V/7AHx2	12V/9AHx2	12V/7AHx4	12V/9AHx4	12V/7AHx6	12V/9AHx6
	Charging Volt.	27.4 VDC ±1%		54.8 VDC ±1%		82.1 VDC ±1%	
	Backup time	10 min.	10 min	13 min	13 min	14 min	12 min
	Typical Recharge time	4 hours recover to 90% capacity					
Long-run Model	Charging current		4A / 8A		4A / 8A		4A / 8A
	Charging Volt.		27.4 $_{VDC}$ ±1%		54.8 $_{VDC}$ ±1%		82.1 $_{VDC}$ ±1%
INDICATORS							
LCD Display		AC mode, Battery mode, Load level, Battery level, Input Voltage, Output Voltage, Overload, Fault and Low battery					
PROTECTION							
Full Protection		Overload, discharge and overcharge protection					
ALARM							
Battery Mode		Sounding every 10 seconds					
Low Battery		Sounding every second					
Overload		Sounding every 0,5 seconds					
Fault		Continuously sounding					
INTERFACE							
Output connectors		8 x IEC				7 x IEC	
Communication ports		1xUSB + 1xRS-232 + 1xRJ11					
PHYSICAL							
Standard Model	Dimensions, DxWxH (mm)	380 x 438 x 88		480 x 438 x 88		600 x 438 x 88	
	Net Weight (Kg)	12.9	14.23	21.08	23.11	30.65	32.24
Long-run Model	Dimensions, DxWxH (mm)		380 x 438 x 88		480 x 438 x 88		600 x 438 x 88
	Net Weight (Kg)		10.8		14		18
ENVIRONMENT							
Humidity		0-90 % RH @ 0 - 40°C (non condensing)					
Noise Level		Less than 45dB					
MANAGEMENT							
RS-232 & USB		Supports Windows® 2000/2003/XP/Vista/2008/7, Linux, Unix and MAC					
Optional SNMP		Power management from SNMP manager and web browser					

* Specifications are subject to change without further notice

LA-ON-LCD

General Overview

LA-ON-LCD series are On-Line, true double conversion UPS. That means that the electric flux passes through two converters (a rectifier and an inverter) so it provides a continuously stable voltage, free of electric parasites.

These UPS are the most appropriate for computing networks, servers, telecommunications, industrial applications, etc.

There are 4 capacities available: 1KVA, 2KVA, 3KVA y 6KVA. 10KVA capacity under customer demand.

Main features

- True double-conversion.
- Wide input voltage range (110-300 VAC).
- Input power factor correction 0.98.
- Output Power Factor 0.8.
- 50Hz/60Hz frequency converter mode.
- Programmable power management outlets.
- Emergency power off function (EPO).
- Optional Eco-mode operation for energy saving (ECO).
- Generator compatible.
- Charger capacity expansion to 8A for long-run models.
- SNMP+USB+RS-232 multiple communications.
- intelligent charging design for optimized battery performance.
- Maintenance bypass available for 6K/10K models.
- N+X parallel redundancy available for 6K/10K models.

Codes and Logistic info

EAN Code:

LA-ON-1K-LCD	8437008183930
LA-ON-2K-LCD	8437008183947
LA-ON-3K-LCD	8437008183978
LA-ON-6K-LCD	8437008183985
LA-ON-10K-LCD	8437008183992

Units per box / per pallet:

LA-ON-1K-LCD	1 un. / 30 un.
LA-ON-2K/3K-LCD	1 un. / 12 un.
LA-ON-6K/10K-LCD	1 un. / 3 un.

Dimensions: See next page

Net Weight: See next page

Gross Weight:

LA-ON-1K-LCD	14.75 Kg
LA-ON-2K-LCD	28.38 Kg
LA-ON-3K-LCD	31.03 Kg
LA-ON-6K-LCD	83.00 Kg
LA-ON-10K-LCD	127.00 Kg

Front and rear view

FRONT **LA-ON-1K-LCD** **LA-ON-2K-LCD** **LA-ON-3K-LCD** **LA-ON-6K-LCD**

Technical Specifications

LA-ON-LCD SERIES ON-LINE UPS							
MODEL		**LA-ON-1KLCD (L)**	**LA-ON-2KLCD (L)**	**LA-ON-3KLCD (L)**	**LA-ON-6K-LCD (L)**	**LA-ON-10K-LCD (L)**
CAPACITY		1000VA/800W	2000VA/1600W	3000VA/2400W	6000VA / 4800W	10000VA/8000W
INPUT						
Voltage Range	Low Line Transfer	160VAC/140VAC/120VAC/110VAC ±5% or 80VAC/70VAC/60VAC/50VAC ±5%			176VAC ±3 @ 100% load 110VAC ±3 @ 50% load	
	Low Line comeback	175VAC ±5% or 85VAC ±5%			186VAC @ 100% load 12 VAC @ 50% load	
	High Line Transfer	300VAC ±5% or 150VAC ±5%			300VAC ±3%	
	High Line comeback	290VAC ±5% or 145VAC ±5%			290VAC	
Frequency Range		40Hz ~ 70 Hz			46~54Hz @50Hz / 56~64Hz @60Hz	
Phase		Single phase with ground				
Power Factor		≧ 0.99 @ 220-230VAC (input voltage)			≧ 0.99 @ 100% load	
OUTPUT						
AC Voltage Regulation (Batt. Mode)		± 3%			± 1%	
Frequency Range (Synchr. Range)		47 ~ 53 Hz or 57 ~ 63 Hz			46~54Hz@50Hz / 56~64Hz @60Hz	
Frequency Range (Batt. Mode)		50 Hz ± 0.25 Hz or 60Hz ± 0.3 Hz			50 Hz ± 0.1 Hz or 60 Hz ± 0.1 Hz	
Current Crest Ratio		3:1				
Harmonic distortion		≦3% THD (Linear Load) ≦6% THD (Non-linear load)	≦4% THD (Linear Load) ≦7% THD (Non-linear Load)		≦3% THD (Linear Load) ≦6% THD (Non-linear Load)	
Transfer Time	AC Mode - Batt. Mode	Zero				
	Inverter to Bypass	4 ms (Typical)			Zero	
Waveform (batt. Mode)		Pure Sinewave				
EFFICIENCY						
AC Mode		~ 85%	~ 88%		89%	
Battery Mode		~ 83%			88%	
BATTERY						
Standard Model	Battery type	12V/7AH	12V/7AH	12V/9AH	12V/7AH	12V/9AH
	Number	3	6	6	20	20
	Typical Recharge Time	4 hours recover to 90% capacity			7 h. recover to 90% capacity	8 h. recover to 90% capacity
	Charging current (max)	1.0 A (max)			1.0 A ±10% (max)	
	Charging voltage	41.0 VDC ± 1%	82.1 VDC ±1%		273.0 VDC	
Long-run Model	Battery type	Depending on applications				
	Number	3	6	6	18 - 20	
	Charging current (max)	8.0 A			4.0 A	
	Charging voltage	41.0 VDC ± 1%	82.1 VDC ±1%		273.0 VDC @ 20 pcs. batteries	
INDICATORS						
LCD Panel		UPS status, Load level, Battery level, Input/Output voltage, Discharge timer, and Fault conditions				
ALARM						
Battery Mode		Sounding every 4 seconds				
Low Battery		Sounding every second				
Overload		Sounding twice every second				
Fault		Continuously sounding				
INTERFACE						
Power Output		4xIEC	8xIEC	6xIEC + Terminal Block	2xIEC + Terminal Block	
Communication Ports		1xUSB + 1xRS232 + 1xRJ45			1xUSB + 1xRS232 + 1xRJ45	
PHYSICAL						
Dimensions, D x W x H (mm)		397 X 145 X 220	421 X 190 X 318		592 X 250 X 576	
Net Weight (Kg)	Standard Model	13	26	28	81	83
	Long-run Model	7	13		25	27
ENVIRONMENT						
Humidity		20-90 % RH @ 0 - 40°C (non-condensing)				
Noise Level		< 45dBA @ 1 m.			< 55dB @ 1 m.	< 58dB @ 1 m.
SOFTWARE MANAGEMENT						
Smart RS-232 & USB		Supports Windows 98 SE/ME/NT 4.x/2000/2003/XP/Vista/2008/7, Linux, Unix and Mac				
SNMP optional		Power management from SNMP manager and web browser				

* L means long-run model
* Specifications are subject to change without further notice.

LA-ON-RACK

General Overview

LA-ON-RACK series are On-Line, true double conversion UPS. This means that the electric flux passes through two converters (a rectifier and an inverter) so it provides a continuously stable voltage, free of electric parasites.

These UPS are the most appropriate for computing networks, servers, telecommunications, industrial applications, etc. and can be mounted in rack enclosures.

There are 4 capacities available: 1KVA, 2KVA, 3KVA y 6KVA. 10KVA under customer demand.

Main features

- True double-conversion.
- Wide input voltage range (110-300 VAC).
- Input power factor correction 0.98.
- Output Power Factor 0.8.
- 50Hz/60Hz frequency converter mode.
- Programmable power management outlets.
- Emergency power off function (EPO).
- Optional Eco-mode operation for energy saving (ECO).
- Generator compatible.
- Charger capacity expansion to 8A for long-run models.
- SNMP+USB+RS-232 multiple communications.
- Intelligent charging design for optimized battery performance.
- Selectable output voltage through LCD panel.
- Optional isolation transformer offers fully isolation and complete common mode noise rejection.
- Hot-swappable battery design (1K to 3K).

Codes and logistic info

EAN code:

LA-ON-1K-RACK	8437008183411
LA-ON-2K-RACK	8437008183435
LA-ON-3K-RACK	8437008183442
LA-ON-6K-RACK	8437008183459

Units per box / per pallet

LA-ON-1K/2K-RACK	1 un. / 28 un.
LA-ON-3K-RACK	1 un. / 14 un.
LA-ON-6K-RACK	1 un. / 8 un.

Dimensions:	See next page
Net Weight:	See next page

Gross Weight (incl. Batt.):

LA-ON-1K-RACK	15,0Kg
LA-ON-2K-RACK	23,0 Kg
LA-ON-3K-RACK	31,0 Kg
LA-ON-6K-RACK	85,0 Kg

Front and rear view

LA-ON-1K / 2K-RACK

LA-ON- 3K-RACK

LA-ON-6K-RACK (UPS+Battery)

Technical specifications

LA-ON-RACK SERIES ON-LINE UPS								
MODEL			**LA-ON-1K-R (L)**	**LA-ON-2K-R (L)**	**LA-ON-3K-R (L)**	**LA-ON-6K-R (L)**	**LA-ON-10K-R (L)**	
CAPACITY			1000VA/800W	2000VA/1600W	3000VA/2400W	6000VA / 4800W	10000VA/8000W	
INPUT								
Voltage Range	Low Line Transfer		80/70/60/50VAC ±5% or 160/140/120/110VAC ±5%			176VAC ±3 @ 100% load 110VAC ±3 @ 50% load		
	Low Line comeback		85/75/65/55VAC ±5% or 170/150/130/120VAC ±5%			186VAC @ 100% load 120VAC @ 50% load		
	High Line Transfer		150VAC ±5% or 300VAC ±5%			300VAC ±3%		
	High Line comeback		145VAC ±5% or 290VAC ±5%			290VAC ±3%		
Frequency Range			45~55Hz or 56~65Hz			46~54Hz or 56~64Hz		
Phase			Single phase with ground					
Power Factor			≧ 0.99			≧ 0.99 @ 100% load		
OUTPUT								
Output voltage			110/115/120/127VAC or 208/220/230/240VAC			208/220/230/240 VAC		
AC Voltage Regulation (Batt. Mode)			± 1%					
Frequency Range (Synchroniz.Range)			48~52Hz or 58~62Hz			46~54Hz@50Hz / 56~64Hz @60Hz		
Frequency Range (Batt. Mode)			50 Hz ± 0.2 Hz or 60Hz ± 0.2 Hz			50 Hz ± 0.1 Hz or 60 Hz ± 0.1 Hz		
Current Crest Ratio			3:1					
Harmonic distortion			≦ 2% THD (Linear Load) 8% max (Battery mode before shutdown)			≦ 3% THD (Linear Load) ≦ 6% THD (Non-Linear load)		
Transfer Time	AC to Batt. Mode		Zero					
	Inverter to Bypass		4 ms (Typical)			Zero		
Waveform (batt. Mode)			Pure Sine Wave					
EFFICIENCY								
AC Mode			86%		88%		89%	
Battery Mode			83%		85%		88%	
BATTERY								
Standard Model	Battery type		12V/7AH	12V/9AH	12V/7AH	12V/9AH	12V/ 9AH	12V/7AH	12V/9AH
	Number		3* (LV)	2	6* (LV)	4	6	20	20
	Typical Recharge Time		4 hours recover to 90% capacity					3h. up to 90% cap.	4h. up to 90% cap.
	Max. charging current		1.0 A					2.0 A	
	Charging voltage		41.1_{VDC}	27.4_{VDC}	82.1_{VDC}	54.8_{VDC}	82.1_{VDC}	273.0 VDC ±1%	
Long-run Model	Battery type		Depending on the capacity of external batteries					Depending on applications	
	Number							18-20	
	Max. charging current		8.0 A					2.0 A	
	Charging voltage		41.1_{VDC}	27.4_{VDC}	82.1_{VDC}	54.8_{VDC}	82.1_{VDC}	273.0 VDC ±1%	
INDICATORS								
LCD Panel			UPS status, Load level, Battery level, Input/Output voltage, Discharge timer and Fault					
ALARM								
Battery Mode			Sounding every 4 seconds					
Low Battery			Sounding every second					
Overload			Sounding twice every second					
Fault			Continuously sounding					
CONNECTORS								
Power Output			8xIEC			6xIEC + TB	2xIEC + Terminal Block	
Communication Ports			1xUSB + 1xRS232 + 1xRJ45				1xUSB + 1xRS232 + 1xRJ45	
PHYSICAL								
Standard Model	Dimensions DxWxH (mm)		480x438x88	380x438x88	600x438x88	480x438x88	600x438x88 [2U]	UPS:580x438x133 Batt: 580x438x133	UPS:668x438x133 Batt: 580x438x133
	Net Weight (Kg)		18,4 (LV)	13,2	25,7 (LV)	20,6	29	UPS: 17 Battery: 57	UPS: 20 Battery: 63
Long-run Model	Dimensions DxWxH		480x438x88	380x438x88	600x438x88	480x438x88	600x438x88 [2U]	580x438x133 [3U]	668x438x133 [3U]
	Net Weight (Kg)		11,3 (LV)	9,1	14,6 (LV)	11,3	14,8	17	20
ENVIRONMENT								
Power Output			20-90 % RH @ 0- 40°C (non-condensing)					
Communication Ports			< 45dBA @ 1 m.				< 55dB @ 1 m.	< 58dB @ 1 m.
MANAGEMENT								
Smart RS-232 & USB			Supports Windows 98 SE/ME/NT 4.x/2000/2003/XP/Vista/2008/7, Linux, Unix and Mac					
SNMP optional			Power management from SNMP manager and web browser					

* Specifications are subject to change without furher notice. / * L means long-run model
* In LV system, only 12V/7Ah x 3 for 1K model and 12V/7Ah x 6 for 2K model are available.
Note 1: Derate capacity to 60% of capacity in CVCF mode and to 90% when the output voltage is adjusted to 208VAC
Note 2: If the UPS is installed or used in a place where the altitude is above than 1000m, the output power must be derated one percent per 100m.

ACCESORIES

Battery Packs (for Tower use or for Rack mounting)

In case of needing a longer backup time than indicated on the technical specifications table, optionally the user can connect the UPS to an external battery pack as a complement to the batteries included in the UPS.

Capacity (VA)	1K	2K / 3K			
Battery Type	12V/7Ah	12V/7Ah	12V/9Ah	12V/7Ah	12V/9Ah
Battery no.	6	12	12	18	18
Dimensions (DxWxH) mm	397x145x220	421X190X318		535X190X318	
Net Weight(kg)	18	36	40	55	61

Capacity (VA)	6K / 10K					
Battery Type	12V/7Ah	12V/9Ah	12V/7Ah	12V/9Ah	12V/7Ah	12V/9Ah
Battery no.	20	20	40	40	60	60
Dimensions (DxWxH) mm	592X250X576				830X250X576	
Net Weight(kg)	64	72	109	125	166	190

Capacity (VA)	1K-R	1.5K-R	2K-R	3K-R	6K-R/10K-R	
Battery Type	12V/9Ah	12V/9Ah	12V/9Ah	12V/9Ah	12V/7Ah	12V/9Ah
Battery no.	8	6	8	12	20	20
Dimensions (DxWxH) mm	480X438X88			600X438X88	580X438X133	
Net Weight(kg)	31.1	29.1	31.1	43.3	57	63

Remote monitoring & management

➢ SNMP Card (LA-SNMP)

- It enables to control and monitor multiple UPSs through RJ-45 network connection.
- Dynamic real-time graphics of UPS data (voltage, frequency, load and battery levels).
- Warning notifications via audible alarm, broadcast, mobile messenger, e-mail and SNMP card.
- Historic data log stored in centralized PC database.
- Easy firmware upgrade with one click.
- Password security protection and remote access management.
- Supports optional environmental monitoring detector for temperature, humidity and smoke.
- Integrated with ViewPower Pro software.

➢ AS-400 Card (LA-AS400)

- Able to select the status of the dry-contact signal by setting the jumper, in order to meet different application requirements.
- Suitable for IBM Servers, Personal PC and workstations, auto-controlled industrial equipment and communication applications.
- Available in RS-232 and 9-pin interfaces.

➢ Modbus Card (LA-MODBUS)

- Supports Modbus RTU protocol.
- Built-in dip switch for RS-485 configuration.
- Real-time control and monitoring of multiple UPSs or inverters via RS-232/RS-285 communication port.

Remote monitoring & management

➢ LA-EMD – Environmental Monitoring Device

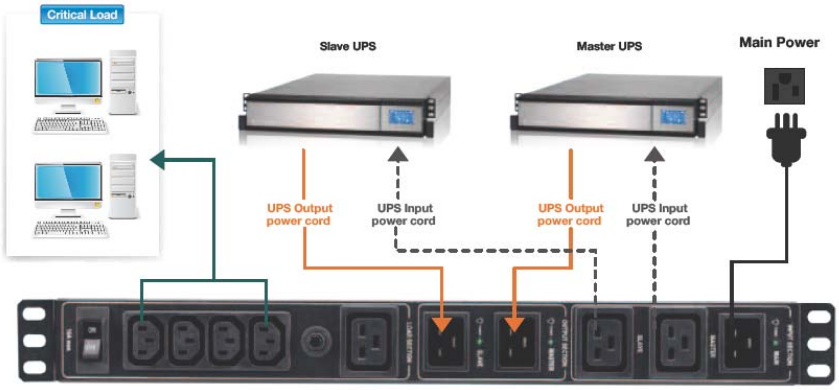
- Easy to install together with SNMP manager, plug & play use.
- Monitor temperature and humidity to protect the most sensitive equipment.
- It allows 4-contact closure signal for user-defined usage.
- Management software to remote monitor temperature and humidity status via web browser.
- Measured temperature range: between 0ºC to 100ºC with an accuracy of ±1.5ºC
- Measured relative humidity range: between 10% to 90% RH with an accuracy of ±3%
- Optional smoke alarm available.

Redundant Backup System (LA-RBS)

This RBS (*Redundant Backup System*) is designed to provide 1+1 redundancy power backup system with cost efficiency. It integrates 2 UPSs, providing higher reliability that a single UPS could.

- Max. input current: 10A and 16A.
- Dual power supply for redundancy.
- A simple solution that guarantees power continuity for connected equipment.
- Highly reliable 19” rack design to fit into different working environments.

System configuration

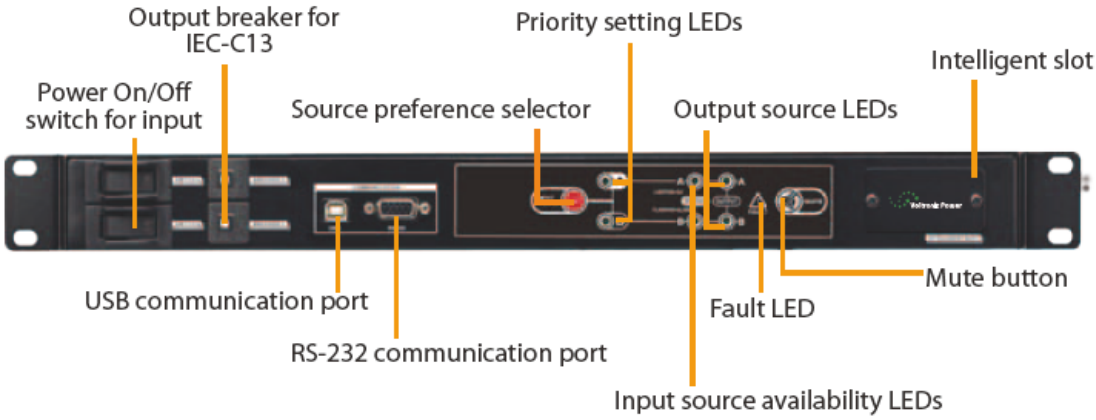


RBS – REDUNDANT BACKUP SYSTEM			
MODELO		**LA-RBS-10A**	**LA-RBS-16A**
INPUT			
Input voltage		208/220/230/240VAC	
Acceptable input voltage range		100-280VAC	
Input frequency range		40-70 Hz	
Nominal input current		10A	16A
OUTPUT			
Output voltage		208/220/230/240 VAC	
Maximum output current		10A	16A
Switching time	Master UPS -> slave UPS	10 ms max.	
	Slave UPS -> Master UPS	4 ms max.	
CONNECTION			
Mains connector		1 x IEC C14	1 x IEC C20
UPS input connectors		2 x IEC C13	2 x IEC C19
UPS output connectors		2 x IEC C14	2 x IEC C20
Load Connecctors		6 x IEC C13	4 x IEC C13 + 1 x IEC C19
INDICATORS			
Power LED		Green LED	
Master UPS LED		Green LED	
Slave UPS LED		Green LED	
PHYSICAL			
Dimensions, D x W x H (mm)		98 x 438 x 50	
Net weight (Kg)		1,8	
ENVIRONMENT			
Operating temperature & humidity		0-90 % RH @ 0 - 40°C (non-condensing)	

Automatic Transfer Switch (LA-ATS)

This ATS (*Automatic Transfer Switch*) is designed with two independent power inlets to supply power to the load from a primary power source. Should primary power source fail, the secondary will automatically back up the connected equipment without any interruption. After switching to a secondary power source, the ATS can also switch power back to the primary input when power to the primary input is restored.

- Max. input current: 16A.
- Redundant protection powered by two separate independent power sources.
- It provides seamless power switch for connected equipment.
- Source preference selector on front panel.
- Highly reliable 19" rack design (1U) to fit into different working environments.
- USB & RS-232 communication ports.



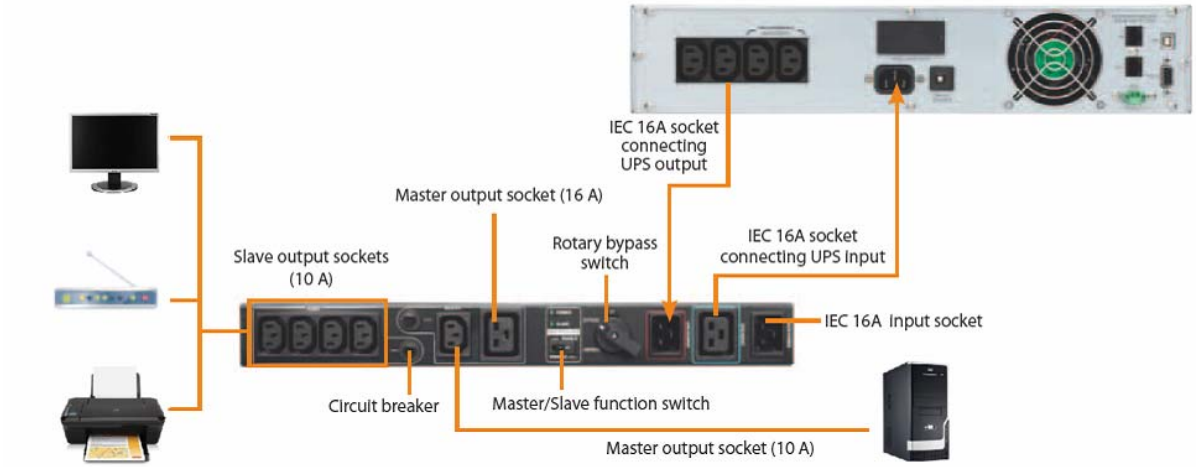
ATS – AUTOMATIC TRANSFER SWITCH	
MODEL	**LA-ATS**
INPUT	
Input voltage	208/220/230/240VAC
Acceptable input voltage	180-258 VAC
Input frequency	50-60 Hz
Input nominal current	16A
OUTPUT	
Output voltage	220/230/240 VAC
Max. output current	10A for IEC-C13 outlets 16A for IEC-C19 outlets
CONECTIONS	
Input	2 x IEC (C20)
Output	8 x IEC (C13) 1 x IEC (C19)
PHYSICAL	
Dimensions D x W x H (mm)	330 x 483 x 44
Net weight (Kg)	5
Net weight (Kg) Incl. accessories	8
ENVIRONMENT	
Operating temperature & humidity	20-95 % RH @ -5 - +45°C (non-condensing)

PDU and Maintenance Bypass Switch

This PDU-SBM is used as an external power distribution unit together with UPS systems or large-scale voltage regulators. It allows manually transferring the connected equipment to utility power via a bypass switch, making possible a scheduled maintenance or UPS replacement without power interruption. The combination of the power distribution feature and the master-controlled design provides maintenance bypass function and power saving within a compact device.

- 16A for 208/220/230/240VAC and 20A for 110/115/120/127VAC.
- Provides uninterrupted power to connected load during UPS maintenance or replacement.
- Easy to use with a simple rotary switch and indicators.
- Master/slave function for energy saving.
- Large number of sockets provided for extended use.
- Available in rack and tower design to fit into different working environments.
- Simple installation, plug & play socket type.
- Suitable for any UPS up to 3KVA.

System configuration


IEC 16A socket connecting UPS output
Master output socket (16 A)
Slave output sockets (10 A)
Rotary bypass switch
IEC 16A socket connecting UPS Input
IEC 16A Input socket
Circuit breaker
Master/Slave function switch
Master output socket (10 A)

PDU & MAINTENANCE BYPASS SWITCH			
MODEL		**LA-PDU-SM-Rack**	**LA-PDU-SM-Torre**
RATINGS & FEATURES			
Current rating		10A max for 208/220/230/240VAC 20A max for 110/115/120/127VAC	
Voltage rating		208/220/230/240VAC 110/115/120/127VAC	
Master/Slave function		Yes. When power consumption in Master outlet is lower than 20W (±5W), power for slave outlets will shut off.	N/A
CONECTIONS			
Input	AC Input	1 x IEC (16A) + 1 customized plug cable	
	UPS Input	1 x IEC (16A) + 1 IEC cable (16A-10A for 1K/2K UPS or 16A-16A for 3K UPS)	
	UPS Output	1 x IEC (16A) + 1 IEC cable (16A-10A for 1K/2K UPS or 16A-16A for 3K UPS)	
Output	IEC	5 x IEC 10A + 1x IEC 16A (with 2 circuit breakers)	8 x IEC 10A + 1x IEC 16A (with 2 circuit breakers)
	Schuko	4 x Schuko 16A	
	UK	4 x UK 13A	
	NEMA	5 x NEMA 20A	6 x NEMA 20A
PHYSICAL			
Dimensions DxWxH (mm)	IEC	80 x 438 x 50	180 x 160 x 50
	Schuko / UK	80 x 438 x 60	180 x 200 x 50
	NEMA	80 x 438 x 50	180 x 160 x 50
Net Weight (Kg)		1.5	1.3
ENVIRONMENT			
Operating temperature & humidity		20-90 % RH @ 0 - 40°C (non-condensing)	

LA-ON31

General Overview

LA-ON31 series are On-Line **3 Phase In / 1 Phase Out**, true double conversion UPS. This means that the electric flux passes through two converters (a rectifier and an inverter) so it provides a continuously stable voltage, free of electric parasites.

This UPS provide a Wide and strong protector to any sensitive equipment. It accepts a wide range of input voltage, appropriate for harsh environments. It is suitable for computing networks, servers, telecommunications, industry applications, etc.

There are three capacities available: 10KVA, 15KVA and 20KVA and two different types: standard and with isolation transformer.

Main features

- True double conversion.
- DSP Technology for higher performance.
- Wide input voltage range (110-300 VAC).
- Output Power Factor 0.8.
- Active power factor correction in all phases.
- Built-in phase auto adapt function.
- Frequency converter mode 50Hz/60Hz.
- Programmable power management outlets.
- Emergency power off function (EPO).
- Eco mode for energy saving (ECO).
- Generator compatible.
- Charger capacity expansion up to 8A for long-run models.
- Multiple communication ports: SNMP+USB+ RS-232.
- 3-stage charging design for optimized battery performance.
- Adjustable battery quantity.
- Available maintenance bypass.
- Optional N+X parallel redundancy.
- Optional isolation transformer available.

Codes and Logistic info

EAN Code:

LA-ON31-10K	8437008183039
LA-ON31-15K	8437008183046
LA-ON31-20K	8437008183053

Units per box / per pallet:

LA-ON31-10K	1 un. / 6 un.
LA-ON31-15K	1 un. / 6 un.
LA-ON31-20K	1 un. / 6 un.

Dimensions: See next page

Net weight: See next page

Gross weight:

LA-ON31-10K	127.00 Kg.
LA-ON31-15K	182.00 Kg.
LA-ON31-20K	182.00 Kg.

Front and rear view

LA-ON31-10K

LA-ON31-15K / 20K

Technical Specifications

LA-ON-31 SERIES (3PHASE IN / 1PHASE OUT) ON-LINE UPS						
MODEL		**LA-ON31-10K (L)****	**LA-ON31-10K ISO (L)****	**LA-ON31-15K (L)****	**LA-ON31-20K (L)****	**LA-ON31-20K ISO L****
CAPACITY		10KVA/8000W	10KVA/8000W	15KVA/12000W	20KVA/6000W	20KVA/16000W
INPUT						
Voltage range	Low Line Transfer	176 VAC (phase voltage) ±3 @ 100% load 110 VAC (phase voltage) ±3 @ 50% load				
	Low Line Comeback	186 VAC (phase voltage) @ 100% load 120 VAC (phase voltage) @ 50% load				
	High line Transfer	300 VAC (phase voltage) ± 3%				
	High line Comeback	290 VAC (phase voltage) ± 3%				
Frequency Range		46~54Hz at 50Hz / 56~64Hz at 60Hz				
Power Factor		≧ 0.99 @ 100% load				
OUTPUT						
Output Voltage		208/220/230/240 VAC	104/110/115/120 VAC or 208/220/230/240 VAC	208/220/230/240 VAC		104/110/115/120 VAC or 208/220/230/240 VAC
AC Volt. Regulation (Batt. mode)		± 1%				
Frequency Range (Synchronized Range)		46~54Hz at 50Hz / 56~64Hz at 60Hz				
Frequency Range (Batt. Mode)		50 Hz ± 0.1 Hz or 60 Hz ± 0.1 Hz				
Current Crest Ratio		3:1				
Harmonic Distorion		≦2% THD (Linear Load) ≦5% THD (Non-Linear Load)	≦2% THD (Linear Load) ≦6% THD (Non-Linear Load)	≦2% THD (Linear Load) ≦5% THD (Non-Linear Load)		≦2% THD (Linear Load) ≦7% THD (Non-Linear Load)
Transfer time	AC Mode to Batt.Mode	Zero				
	Inverter to Bypass	Zero				
Waveform (Batt. Mode)		Pure Sinewave				
EFFICIENCY						
AC Mode		89%	85%	89%	89%	87%
Battery Mode		86%	83%	88%	87%	83%
BATTERY						
Standard Model	Battery type	12V / 9AH				
	Quantity	20 pcs. (18-20 pcs adjustable)*		20pcsx2strings (18-20pcs adjustable)*		N/A
	Typical Recharge Time	9 hours recover to 90% capacity				
	Max Charging Current	1A		2A		
	Charging Voltage	273 VDC ±1%				
Long-run model	Quantity	Depending on applications				
	Quantity	4A		8A		
	Max Charging Current	273 VDC ±1%				
INDICATORS						
LCD Display		UPS status, Load level, Battery level, Input/Output voltage, Discharge time and Fault				
ALARM						
Battery mode		Sounding every 4 seconds				
Low Battery		Sounding every second				
Overload		Sounding twice every second				
Fault		Continuously sounding				
PHYSICAL						
Standard Model	Dimensions DxWxH (mm)	592x250x576	592x250x826	815x250x826		N/A
	Net Weight (Kg)	83	144	164		
Long-run model	Dimensions, DxWxH (mm)	592x250x576	592x250x826	592x250x576		815x250x826
	Net Weight (Kg)	28	91	40		144
ENVIRONMENT						
Humidity		0-95% RH at 0 - 40°C (non-condensing)				
Noise Level		< 58dB at 1 m		< 60 dB at 1 m		
SOFTWARE MANAGEMENT						
Smart RS-232 & USB		Supports Windows 2000/2003/XP/Vista/2008/7, Linux, Unix & Mac				
Optional SNMP		Power management from SNMP manager and web browser				

*When using from 18-19 itnernal batteries, the unit will derate according to the following forumula: $P = P_{Rating}$ x (N/20 X 100%)

** L means Long-run model

Note 1: Derate capacity to 60% of capacity in CVCF mode and to 90% when the output voltage is adjusted to 208VAC

Note 2: If the UPS is installed or used in a place where the altitude is above 1000m, the output power must be derated 1% per 100m

Specifications are subject to change without further notice.

LA-ON31-RACK

General Overview

LA-ON31 series are On-Line Rack mounting, **3 Phase In / 1 Phase Out**, true double conversion UPS. This means that the electric flux passes through two converters (a rectifier and an inverter) so it provides a continuously stable voltage, free of electric parasites.

This UPS provide a Wide and strong protector to any sensitive equipment. It accepts a wide range of input voltage, appropriate for harsh environments. It is suitable for computing networks, servers, telecommunications, industry applications, etc.

There are two capacities available: 10KVA and 20KVA.

Main features

- True double conversion.
- DSP Technology for higher performance.
- Wide input voltaje range (110-300 VAC).
- Output Power Factor 0.8.
- Active power factor correction in all phases.
- Frequency converter mode 50Hz/60Hz.
- Emergency power off function (EPO).
- Eco mode for energy saving (ECO).
- Generator compatible.
- Charger capacity expansion up to 8A for long-run models.
- Multiple communication ports: SNMP+USB+ RS-232.
- 3-stage charging design for optimized battery performance.
- Adjustable battery quantity.
- Optional N+X parallel redundancy.

Codes and logistic info

EAN Code:
- LA-ON31-10K-RACK 8437008183312
- LA-ON31-20K-RACK 8437008183428

Units per box / per pallet:
- LA-ON31-10K-RACK 1 un. / 8 un.
- LA-ON31-20K-RACK 1 un. / 3 un.

Dimensions: See next page

Net weight: See next page

Gross weight:
- LA-ON31-10K-RACK 90.00 Kg.
- LA-ON31-20K-RACK 182.00 Kg.

Front and rear view

LA-ON31-10K-RACK

LA-ON31-20K-RACK

Technical specifications

LA-ON-31-RACK SERIES (3PHASE IN / 1PHASE OUT) ON-LINE UPS			
MODEL		**LA-ON31-10K-RACK (L)****	**LA-ON31-20K-RACK (L)****
CAPACITY		10KVA/8000W	20KVA/6000W
INPUT			
Voltage range	Low Line Transfer	176 VAC (phase voltage) ±3 @ 100% load 110 VAC (phase voltage) ±3 @ 50% load	
	Low Line Comeback	186 VAC (phase voltage) @ 100% load 120 VAC (phase voltage) @ 50% load	
	High line Transfer	300 VAC (phase voltage) ± 3%	
	High line Comeback	290 VAC (phase voltage) ± 3%	
Frequency Range		46~54Hz at 50Hz / 56~64Hz at 60Hz	
Power Factor		≧ 0.99 @ 100% load	
OUTPUT			
Output Voltage		208/220/230/240 VAC	
AC Volt. Regulation (Batt. mode)		± 1%	
Frequency Range (Synchronized Range)		46~54Hz at 50Hz / 56~64Hz at 60Hz	
Frequency Range (Batt. Mode)		50 Hz ± 0.1 Hz or 60 Hz ± 0.1 Hz	
Current Crest Ratio		3:1	
Harmonic Distorion		≦2% THD (Linear Load) ≦5% THD (Non-Linear Load)	
Transfer time	AC Mode to Batt.Mode	Zero	
	Inverter to Bypass	Zero	
Waveform (Batt. Mode)		Pure Sinewave	
EFFICIENCY			
AC Mode		89%	
Battery Mode		86%	87%
BATTERY			
Standard Model	Battery type	12V / 9AH	
	Quantity	20 pcs. (18-20 pcs adjustable)*	20pcs x 2strings (18-20pcs adjustable)*
	Typical Recharge Time	9 hours recover to 90% capacity	
	Max Charging Current	1A	
	Charging Voltage	273 VDC ±1%	
Long-run model	Quantity	Depending on applications	
	Quantity	2A	4A
	Max Charging Current	273 VDC ±1%	
INDICATORS			
LCD Display		UPS status, Load level, Battery level, Input/Output voltage, Discharge time and Fault	
ALARM			
Battery mode		Sounding every 4 seconds	
Low Battery		Sounding every second	
Overload		Sounding twice every second	
Fault		Continuously sounding	
PHYSICAL			
Standard Model	Dimensions DxWxH (mm)	UPS: 668 x 438 x 133 (3U) Battery pack: 580 x 438 x 133 (3U)	UPS: 668 x 438 x 266 (6U) 2 x Battery pack: 580 x 438 x 133 (3U)
	Net Weight (Kg)	UPS: 23 Battery pack: 63	UPS: 38 Battery pack: 63
Long-run model	Dimensions, DxWxH (mm)	668 x 438 x 133 (3U)	668 x 438 x 266 (6U)
	Net Weight (Kg)	23	38
ENVIRONMENT			
Humidity		0-95 % RH at 0- 40°C (non-condensing)	
Noise Level		< 58dB at 1 m	< 60 dB at 1 m
SOFTWARE MANAGEMENT			
Smart RS-232 & USB		Supports Windows 2000/2003/XP/Vista/2008/7, Linux, Unix & Mac	
Optional SNMP		Power management from SNMP manager and web browser	

*When using from 18-19 itnernal batteries, the unit will derate according to the following forumula: P = P_{Rating} x (N/20 X 100%)
** L means Long-run model
Note 1: Derate capacity to 60% of capacity in CVCF mode and to 90% when the output voltage is adjusted to 208VAC
Note 2: If the UPS is installed or used in a place where the altitude is above 1000m, the output power must be derated 1% per 100m
Specifications are subject to change without further notice.

LA-ON33

General Overview

LA-ON33 series are On-Line, **3 Phase In / 3 Phase Out**, true double conversion UPS. This means that the electric flux passes through two converters (a rectifier and an inverter) so it provides a continuously stable voltage, free of electric parasites.

This UPS provide a continuous and high quality power supply to three-phase loads. It is suitable for any three-phase industrial or telecommunications application.

There are two capacities available: 10KVA and 20KVA.

Main features

- True double conversion.
- DSP Technology for higher performance.
- Wide input voltaje range (110-300 VAC).
- Output Power Factor 0.8.
- Active power factor correction in all phases.
- Accepts dual power inputs.
- Frequency converter mode 50Hz/60Hz.
- Emergency power off function (EPO).
- Eco mode for energy saving (ECO).
- Generator compatible.
- Multiple communication ports: SNMP+USB+ RS-232.
- 3-stage charging design for optimized battery performance.
- Adjustable battery quantity.
- Maintenance bypass available.
- Optional N+X parallel redundancy.
- Optional isolation transformer available.

Codes and logistic info

EAN Code:
- LA-ON33-10K 8437008183794
- LA-ON33-20K 8437008183800

Units per box / per pallet:
- LA-ON33-10K 1 un. / 6 un.
- LA-ON33-20K 1 un. / 6 un.

Dimensions: See next page

Net weight: See next page

Gross weight:
- LA-ON33-10K 127.00 Kg.
- LA-ON33-20K 182.00 Kg.

Front and rear view

LA-ON33-10K

LA-ON33-20K

Technical specifications

LA-ON-33 SERIES (3PHASE IN / 3PHASE OUT) ON-LINE UPS			
MODEL		**LA-ON33-10K (L)****	**LA-ON33-20K (L)****
CAPACITY		10KVA/8000W	20KVA/6000W
INPUT			
Voltage range	Low Line Transfer	176 VAC (phase voltage) ±3 @ 100% load 110 VAC (phase voltage) ±3 @ 50% load	
	Low Line Comeback	186 VAC (phase voltage) @ 100% load 120 VAC (phase voltage) @ 50% load	
	High line Transfer	300 VAC (phase voltage) ± 3%	
	High line Comeback	290 VAC (phase voltage) ± 3%	
Frequency Range		46~54Hz at 50Hz / 56~64Hz at 60Hz	
Power Factor		≧ 0.99 @ 100% load	
OUTPUT			
Output Voltage		3 x 400V (3 phase + N)	
AC Volt. Regulation (Batt. mode)		± 1%	
Frequency Range (Synchronized Range)		46~54Hz at 50Hz / 56~64Hz at 60Hz	
Frequency Range (Batt. Mode)		50 Hz ± 0.1 Hz or 60 Hz ± 0.1 Hz	
Current Crest Ratio		3:1 (max)	
Harmonic Distorion		≦2% THD (Linear Load) ≦5% THD (Non-Linear Load)	
Transfer time	AC Mode to Batt.Mode	Zero	
	Inverter to Bypass	Zero	
Waveform (Batt. Mode)		Pure Sinewave	
EFFICIENCY			
AC Mode		89%	
Battery Mode		86%	87%
BATTERY			
Standard Model	Battery type	12V / 9AH	
	Quantity	20 pcs. (18-20 pcs adjustable)*	20pcs x 2strings (18-20pcs adjustable)*
	Typical Recharge Time	9 hours recover to 90% capacity	
	Max Charging Current	1A	2A
	Charging Voltage	273 VDC ±1%	
Long-run model	Quantity	Depending on applications	
	Quantity	4A	8A
	Max Charging Current	273 VDC ±1%	
INDICATORS			
LCD Display		UPS status, Load level, Battery level, Input/Output voltage, Discharge time and Fault	
ALARM			
Battery mode		Sounding every 4 seconds	
Low Battery		Sounding every second	
Overload		Sounding twice every second	
Fault		Continuously sounding	
PHYSICAL			
Standard Model	Dimensions DxWxH mm	592 x 250 x 575	815 x 250 x 826
	Net Weight (Kg)	83	164
Long-run model	Dimensions, DxWxH mm	592 x 250 x 575	592 x 250 x 575
	Net Weight (Kg)	28	40
ENVIRONMENT			
Humidity		0-95 % RH at 0- 40°C (non-condensing)	
Noise Level		< 58dB at 1 m	< 60 dB at 1 m
SOFTWARE MANAGEMENT			
Smart RS-232 & USB		Supports Windows 2000/2003/XP/Vista/2008/7, Linux, Unix & Mac	
Optional SNMP		Power management from SNMP manager and web browser	

*When using from 18-19 itnernal batteries, the unit will derate according to the following forumula: $P = P_{Rating} \times (N/20 \times 100\%)$

** L means Long-run model

Specifications are subject to change without further notice.

VIEWPOWER

ViewPower 2.0 is an advanced UPS management software. It allows remote monitor and management from one to multiple UPSs in a networked environment, either LAN or INTERNET. It can not only prevent data loss from power outage and safely shutdown systems, but also store programming data and scheduled shutdown UPSs.

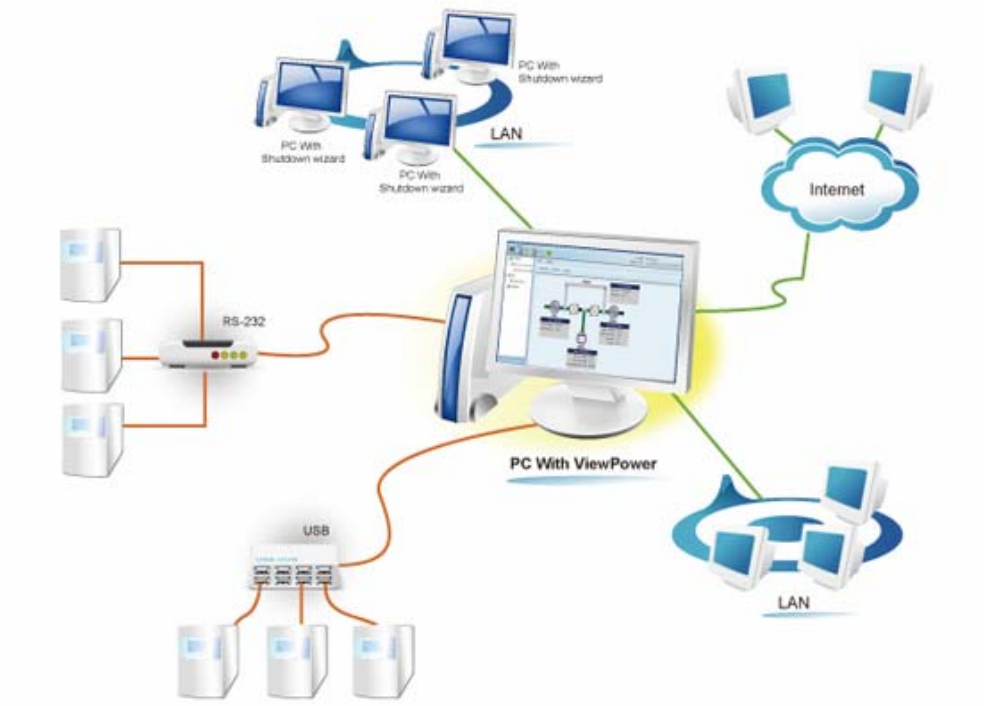
Compared to ViewPower 1.05, Version 2.0 allows remote control and monitoring for multiple UPSs via networked environment. Besides, it also provides event statistic and power flow information in diagram for corporate MIS to analyze power status. To avoid outside hackers, it also provides password security protection for control and management.

http://www.laparaups.com/es/software.php

Feature summary

- Allows control and monitoring of multiple UPSs via LAN and INTERNET.
- Supports auto and manual online upgrade.
- User-friendly power analysis graph: event statistics, history data chart export.
- Real-time dynamic graphs of UPS data (voltage, frequency, load level, battery level).
- Safely OS shutdown and protection from data loss during power failure.
- Warning notifications via audible alarm, broadcast, mobile messenger, and e-mail.
- Scheduled UPS on/off, battery test, programmable outlet control, and audible alarm control.
- Password security protection and remote access management.
- Supports multiple languages: English, Chinese, French, German, Spanish, Russian, Portuguese, Ukrainian, Italian, Polish, Czech and Turkish.

System diagram



VIEWPOWER PRO

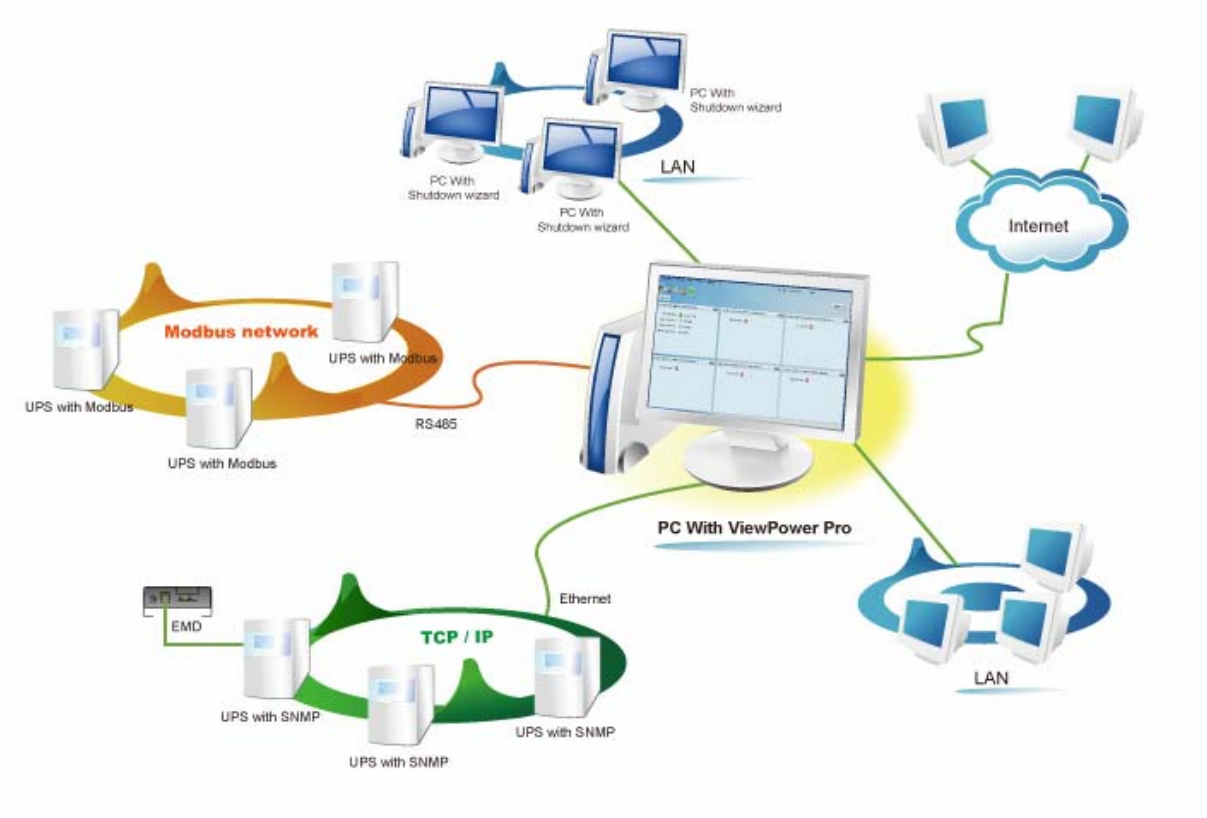
Integrated with **SNMP card** or **Modbus card,** ViewPower Pro is a UPS management software to monitor and manage from one to multiple UPSs in a networked environment, either LAN, INTERNET and serial connection. It is also compatible with Shutdown Wizard which is a highly specialized and designed tool to perform shutdown task.

http://www.laparaups.com/es/software.php

Feature summary

- Compatible with SNMP and Modbus cards.
- Centralized control and monitor up to 1000 UPSs in LAN, Internet, or serial networks.
- Allows simple remote monitoring via web browser.
- Offers quick overview for multiple-UPS monitoring in Text and Graphic view.
- Offers user-customized background picture for graphic view with simple drag and drop.
- Scheduled UPS on/off, battery test, and scheduled wake on LAN programs.
- Supports multiple languages: English, French, German, Spanish, Russian, Portuguese, Ukrainian, Italian, Polish, Czech, Chinese(Simplified), Chinese(Traditional).

. *System diagram*



SUMMARY

SURGE PROTECTORS & VOLTAGE REGULATORS CODE	DESCRIPTION	EAN	Net Weight	Gross Weight Unit	Gross Weight Box	Pcs/box	Pcs/palet
SP SERIES							
LA-SP7	Surge protector with 7 Schuko outlets	8437008183497	0,6	0,79	10.35	12	384
AVR SERIES							
LA-AVR-600	Automatic Voltage Regulator (AVR) 600VA / 360W	8437008183565	1,7	1,80	17.06	9	288
LA-AVR-1000	Automatic Voltage Regulator (AVR) 1000VA / 600W	8437008183596	2	2,15	20.15	9	288
LA-AVR-1200	Automatic Voltage Regulator (AVR) 1200VA / 720W	8437008183732	2,1	2,26	21.10	9	288

OFF LINE UPS CODE	DESCRIPTION	EAN	Net Weight	Gross Weight Unit	Gross Weight Box	Pcs/box	Pcs/palet
SCD SERIES							
LA-SCD-400	Off Line UPS 400VA / 200W Microprocessor control	8437008183770	2,25	2,40	22.54	9	288
LA-SCD-600	Off Line UPS 600VA / 300W Microprocessor control	8437008183787	2,56	2.71	25.33	9	288

LINE INTERACTIVE UPS CODE	DESCRIPTION	EAN	Net Weight	Gross Weight Unit	Gross Weight Box	Pcs/box	Pcs/palet
VST SERIES							
LA-VST-650	Line Interactive UPS 650VA / 360W Double stabilizer	8437008183831	4,25	4,52	18.91	4	128
LA-VST-850	Line Interactive UPS 850VA / 480W Double stabilizer	8437008183848	4,9	5,15	21.45	4	128
LA-VST-1000	Line Interactive UPS 1000VA/600W Double stabilizer	8437008183855	8	8,67		1	63
LA-VST-1500	Line Interactive UPS 1500VA/900W Double stabilizer	8437008183862	11,1	12.17		1	42
LA-VST-2000	Line Interactive UPS 2000VA/1200W Double stabilizer	8437008183879	12,1	13.18		1	42
VST-LCD SERIES							
LA-VST-1000LCD	Line Interactive UPS 1000VA/600W Double stabilizer	8437008183909	8	8,67		1	63
LA-VST-1500LCD	Line Interactive UPS 1500VA/900W Double stabilizer	8437008183916	11,1	12.17		1	42
LA-VST-2000LCD	Line Interactive UPS 2000VA/1200W Double stabilizer	8437008183923	11,5	13.18		1	42
ITR-LCD SERIES							
LA-ITR-800LCD	Line Interactive UPS 800VA / 640W, Tower/Rack 2U	8437008183077	12,9	16.15		1	14
LA-ITR-1100LCD	Line Interactive UPS 1100VA / 880W Tower/Rack 2U	8437008183084	14,23	17.10		1	14
LA-ITR-1500LCD	Line Interactive UPS 1500VA / 1200W Tower/Rack 2U	8437008183091	21,08	24.40		1	14
LA-ITR-2000LCD	Line Interactive UPS 2000VA / 1600W Tower/Rack 2U	8437008183107	23,11	26.70		1	14
LA-ITR-2500LCD	Line Interactive UPS 2500VA / 2000W Tower/Rack 2U	8437008183114	30,65	32.07		1	14
LA-ITR-3000LCD	Line Interactive UPS 3000VA / 2400W Tower/Rack 2U	8437008183121	32,24	34.35		1	14

ON-LINE UPS CODE	DESCRIPTION	EAN	Net Weight	Gross Weight	Pcs/box	Pcs/palet
ON-LCD SERIES						
LA-ON-1K-LCD	On-Line UPS 1000VA/800W True double conversion	8437008183930	13	14.75	1	30
LA-ON-2K-LCD	On-Line UPS 2000VA/1600W True double conversion	8437008183947	26	28,38	1	12
LA-ON-3K-LCD	On-Line UPS 3000VA/2400W True double conversion	8437008183978	28	31.03	1	12
LA-ON-6K-LCD	On-Line UPS 6000VA/4800W True double conversion	8437008183985	81	83.00	1	3
LA-ON-10K-LCD	On-Line UPS 1000VA/8000W True double conversion	8437008183992	83	127.00	1	3
ON-RACK SERIES						
LA-ON-1K-RACK	On-Line UPS 1000VA / 800W Rack Mounting [2U]	8437008183411	13,2	15	1	28
LA-ON-2K-RACK	On-Line UPS 2000VA / 1600W Rack Mounting [2U]	8437008183435	20,6	23	1	28
LA-ON-3K-RACK	On-Line UPS 3000VA / 2400W Rack Mounting [2U]	8437008183442	29	31	1	14
LA-ON-6K-RACK	On-Line UPS 6000VA/4800W Rack Mounting [3U+3U]	8437008183459	74	78	1	8
LA-ON-10K-RACK	On-Line UPS 10000VA/8000W Rack Mounting [3U+3U]	8437008183466	83	88	1	8

ON-LINE UPS (3Ph/1Ph y 3Ph/3Ph) CODE	DESCRIPTION	EAN	Net Weight	Gross Weight	Pcs/box	Pcs/palet
ON31 SERIES						
LA-ON31-10K	On-Line 3Ph/1Ph UPS 10000VA / 8000W	8437008183312	83	83	1	6
LA-ON31-15K	On-Line 3Ph/1Ph UPS 15000VA / 12000W	8437008183428	164	164	1	6
LA-ON31-20K	On-Line 3Ph/1Ph UPS 20000VA / 16000W	8437008183534	164	164	1	6
ON31-RACK SERIES						
LA-ON31-10K-RACK	On-Line 3Ph/1Ph UPS 10000VA/ 8000W Rack [3U+3U]	8437008183572	86	90	1	8
LA-ON31-20K-RACK	On-Line 3Ph/1Ph UPS 20000VA/16000W Rack [6U+6U]	8437008183589	101	182	1	4
ON33 SERIES						
LA-ON33-10K	On-Line 3Ph/3Ph UPS 10000VA / 8000W	8437008183619	83	127	1	6
LA-ON33-20K	On-Line 3Ph/3Ph UPS 20000VA / 16000W	8437008183626	164	182	1	6

“Quality is not an act, it is a habit.” Aristotle

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